I claim:

1.   A coding scheme for use with a CSMA protocol to enable transmission of high

data rate information signals thereover between devices, wherein the protocol includes an OFDM

physical layer, a MAC layer, a CSMA protocol inner code and a systemic code, comprising:

5   providing an outer coding generator;

                generating outer code words containing coded and uncoded data therein in the

outer code generator;

                wherein, the generated outer code words fit with a small multiple of data bits with

an OFDM symbol having a fixed number of data bits, thereby providing for transmission of high

10   data rate information using the outer code and the CSMA protocol inner code at a data rate of at

least 24 Mbps and at a packet error rate of less than $1.5 \cdot 10^{-9}$.

2.   The coding scheme of claim 1 wherein said generating outer code words includes

generating outer code words of different lengths as a function of the data being transmitted.

15

3.   The coding scheme of claim 1 wherein said generating outer code words includes

generating outer code words in multiples of 24.

4.   The coding scheme of claim 1 wherein said generating outer code words includes

20   generating separate header coding and parity check symbols and separate frame body coding.

22   SLA.0366

5.   The coding scheme of claim 1 wherein said generating outer code words includes generating outer coding words operable with MPEG transport streams.

6.   The coding scheme of claim 5 wherein said generating outer code words includes

5   generating an uncoded data portion for transmitting the MPEG transport stream.

7.   The coding scheme of claim 1 which includes a management frame and wherein said generating outer code words includes generating a systemic code portion for use by a device wherein the device ignores code fields and instantiates decoding from management frames.

8.   The coding scheme of claim 1 wherein said generating outer code words includes formatting packets in outer coding words with forward error correction, wherein packets are decodable by non-forward error correcting device.

9.   The coding scheme of claim 1 wherein said generating includes generating outer

15   code words having a frame format of:

MAC Header				MSDU or MMPDU							
24 or 28	2	0 or 4	6 or 12 FEC	0-4	1	k48	k8		k48	k8	
MAC header	Virtual Stream ID	Security Field (Opt.)	(12 if Security field present)	Secuity	FEC	MPDU$_1$	FEC	. . .	MPDUj	FEC	. . .

10.   A coding scheme for use with a CSMA protocol to enable transmission of high data rate information signals thereover between devices, wherein the protocol includes an OFDM physical layer, a MAC layer, a CSMA protocol inner code and a systemic code, comprising:

an outer coding generator;

outer code words containing coded and uncoded data therein in the outer code generator, including an uncoded data portion for transmitting the MPEG transport stream;

wherein, said outer code words fit with a small multiple of data bits with an OFDM symbol having a fixed number of data bits, thereby providing for transmission of high data rate information using the outer code and the CSMA protocol inner code at a data rate of at least 24 Mbps and at a packet error rate of less than $1.5 \cdot 10^{-9}$.

11.   The coding scheme of claim 10 wherein said outer code words are of different lengths as a function of the data being transmitted.

12.   The coding scheme of claim 10 wherein said outer code word includes a separate header code and a separate frame body code.

13.   The coding scheme of claim 10 which includes a management frame and wherein said outer code word includes a systemic code portion for use by a device wherein the device ignores code fields and instantiates decoding from management frames.

SLA.0366

14.   The coding scheme of claim 10 wherein said outer code word includes packet formatting with forward error correction, wherein said packet formatting are decodable by non-forward error correcting device.

5   15.   The coding scheme of claim 1 wherein said outer code words has a frame format of:

MAC Header				MSDU or MMPDU							
24 or 28	2	0 or 4	6 or 12 FEC	0-4	1	k48	k8		k48	k8	
MAC header	Virtual Stream ID	Security Field (Opt.)	(12 if Security field present)	Secuity	FEC	$MPDU_1$	FEC	. . .	MPDUj	FEC	. . .

16.   The coding scheme of claim 1 wherein each coded word includes multiple coded fields, and wherein each coded field is decoded sequentially, and decoding stops on detection of an uncorrectable error, and the packet is discarded.

17.   The coding scheme of claim 1 wherein a short interframe spacing time is present between frames having coded words therein, and wherein the acknowledgement policy is deferred in time for a period at least two-times that of the SIFS time.

SLA.0366

18.   A coding scheme for use with a CSMA protocol to enable transmission of high

data rate information signals thereover between devices, wherein the protocol includes an OFDM

physical layer, a MAC layer, a CSMA protocol inner code and a systemic code, comprising:

          providing an outer coding generator;

          generating outer code words containing coded and uncoded data therein in the

outer code generator, including formatting packets in the outer coding words with forward error

correction, wherein packets are decodable by non-forward error correcting device;

          wherein, the generated outer code words fit with a small multiple of data bits with

an OFDM symbol having a fixed number of data bits, thereby providing for transmission of high

data rate information using the outer code and the CSMA protocol inner code at a data rate of at

least 24 Mbps and at a packet error rate of less than $1.5 \cdot 10^{-9}$.

19.   The coding scheme of claim 18 wherein said generating outer code words

includes generating outer code words of different lengths as a function of the data being

transmitted.

20.   The coding scheme of claim 18 wherein said generating outer code words

includes generating separate header coding and parity check symbols and separate frame body

coding.

21.   The coding scheme of claim 18 wherein said generating outer code words

includes generating outer coding words operable with MPEG transport streams.

22.   The coding scheme of claim 21 wherein said generating outer code words

includes generating an uncoded data portion for transmitting the MPEG transport stream.

23.   The coding scheme of claim 18 which includes a management frame and wherein

said generating outer code words includes generating a systemic code portion for use by a device

wherein the device ignores code fields and instantiates decoding from management frames.

24.   The coding scheme of claim 18 wherein said generating includes generating outer

code words having a frame format of:

MAC Header				MSDU or MMPDU							
24 or 28	2	0 or 4	6 or 12 FEC	0-4	1	k48	k8		k48	k8	
MAC header	Virtual Stream ID	Security Field (Opt.)	(12 if Security field present)	Security	FEC	$MPDU_1$	FEC	. . .	MPDUj	FEC	. . .

25.   The coding scheme of claim 18 wherein each coded word includes multiple coded

fields, and wherein each coded field is decoded sequentially, and decoding stops on detection of

an uncorrectable error, and the packet is discarded.

SLA.0366

26.   The coding scheme of claim 18 wherein a short interframe spacing time is present between frames having coded words therein, and wherein the acknowledgement policy is deferred in time for a period at least two-times that of the SIFS time.